FY19 RARE Projects by ORD Research Program

Air and Energy

Region(s)	Project Title
1	Exploring the cause of persistent high ozone in Connecticut
3	State-level multi-pollutant planning using GLIMPSE
4	Southeast prescribed fire experiment (SERX): emissions characterization of fuels common in the Southeast U.S.
5 and 6	Advanced fugitive measurements of ethylene oxide emissions

Chemical Safety for Sustainability

Region	Project Title
4	Development of a long-term toxicity test and a partial life-cycle toxicity test: filling data gaps of conservation significance in freshwater mussel ecotoxicology (also SSWR)
8	Application of 21st century bioanalytical tools to identify sources and effects of bioactive contaminants associated with select municipal wastewater discharges to the South Platte and Colorado River watersheds, Year 2 of project #1956
10	Inadvertent PCB fate and transport from children's products
10	The transcriptomics of metals toxicity: enhancing our capacity to extrapolate data across species (also SSWR)

Homeland Security

Region(s)	Project Title
2	Assessing the resilience of Region 2 drinking water systems to natural disasters (also SSWR)
1, 3, 4, 5 and 8	Remediation of fentanyl contaminated indoor environments (also SHC)

Human Health Risk Assessment

Region	Project Title
10	Refinement of analytical preparation methods for asbestos in soil: a step towards optimizing reproducibility of soil asbestos measurements (also SHC)

Safe and Sustainable Water Resources

Region(s)	Project Title
1	Pinniped fecal source identification qPCR assay development
2	Assessing the resilience of Region 2 drinking water systems to natural disasters (also HS)
2	Derivation of biocriteria to protect coral reefs in Puerto Rico using a Biological Condition Gradient framework and 301(h) water quality and coral monitoring data (PR-CRBCG): Phase II (Project # 1905)
2	The role of eutrophication in coastal wetland fragmentation, Barnegat Bay, New Jersey
3	Application of advanced monitoring technologies to characterize fecal pollution sources in regulated MS4 discharges in Washington D.C.
3	Efficient detection of wetland change using a hierarchical remote sensing approach for application in Wetland Programs
4	Development of a long-term toxicity test and a partial life-cycle toxicity test: filling data gaps of conservation significance in freshwater mussel ecotoxicology (also CSS)
5	Development of a harmful cyanobacteria-algae bloom (CyanoHAB) risk model for the Ohio River (also SHC)
5	Development of water quality standards and best technologies in process and treatment for stormwater reuse
5	The use of point-of-use water filtration devices for lead service line identification
6	Assessing efficiency and effectiveness of dairy lagoon maintenance technologies to address and prevent waste discharges from dairy lagoons
6	Lake Blue, real time monitoring and outreach - a Village Blue extension to Region 6

Region(s)	Project Title
6	Source characterization of harmful bacteria in urban areas along the Gulf of Mexico (GOM) for potential flooding modeling
7	A diagnostic research approach to characterize regulated disinfection byproduct formation in Kansas and Missouri public water systems
7	Nutrient retention and ecosystem services of managed agricultural landscapes of the upper Midwest USA
7	The relationship between cyanobacterial abundance and toxin concentrations: can analytical methodologies of cyanobacteria population measurements be used to predict the potential cyanotoxin exposure?
8	Toolbox for computational evaluations of impacts of subsurface operations
9	Remote detection and assessment of vernal pool landscapes, Central Valley, California
10	The transcriptomics of metals toxicity: enhancing our capacity to extrapolate data across species (also CSS)

Sustainable and Healthy Communities

Region(s)	Project Title
2	Understanding the geochemical and physicochemical parameters of Puerto Rican landfill leachate to develop leachate treatment strategies (Puerto Rico Leachate Study)
4	Assessment of heavy metal bioaccessibility and bioavailability in contaminated sediments
5	Development of a harmful cyanobacteria-algae bloom (CyanoHAB) risk model for the Ohio River (also SSWR)
7	Optimize sorbent tube sampling and analysis methodology to decrease the use of summa canisters in Region 7
9	Treating deeper aquifer contamination with phytoremediation
10	Refinement of analytical preparation methods for asbestos in soil: a step towards optimizing reproducibility of soil asbestos measurements (also HHRA)
1, 3, 4, 5 and 8	Remediation of fentanyl contaminated indoor environments (also HS)